

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

ORDER NO. 85-106

WASTE DISCHARGE REQUIREMENTS
(SITE CLEANUP REQUIREMENTS) FOR:

SANDIA NATIONAL LABORATORY
LIVERMORE
ALAMEDA COUNTY

The California Regional Water Quality Control Board, San Francisco Bay Region, (hereinafter called the Board) finds that:

1. Sandia National Laboratory (hereinafter called the discharger) occupies 187 acres in the east Livermore Valley (Attachment 1). The site was first used in 1942 by the US Navy as part of the Naval Air Station. The facilities on this property included barracks, a public works yard, a fuel, paint and drum storage area near Arroyo Seco and a landfill.
2. Between 1946 and 1956, the time period between the closure of the Naval Air Station and the occupation of Sandia National Laboratory, the only known uses of the site were for material disposal in the existing landfill and as a firing range.
3. Sandia National Laboratory has used the site since 1956 for non-nuclear weapons research. In 1975, 59,500 gallons of #2 diesel fuel escaped from a punctured underground pipe. In 1984, wells and soil borings were drilled to assess the contamination. Diesel fuel was found in the unsaturated zone down to the water table (Attachment 2). No oil was found floating on top of the water table but dissolved constituents were detected in nearby monitoring wells.
4. The Regional Board adopted a revised Water Quality Control Plan for the San Francisco Bay Region (Basin Plan) on July 21, 1982. The Basin Plan contains Water Quality objectives for surface waters and groundwaters within the Livermore Valley.
5. The existing and/or potential beneficial uses of the groundwater underlying and in the vicinity of the disposal site include the following:

- a. municipal supply
 - b. industrial supply
 - c. domestic supply
 - d. agricultural supply
6. The existing beneficial uses of the surface waters (Arroyo de las Positas, Arroyo Seco, Arroyo Mocho, and Arroyo de Laguna) include the following:
 - a. contact and non-contact water recreation
 - b. wildlife habitat
 - c. groundwater recharge
 - d. fish migration and spawning
7. The Board has notified all interested agencies and persons of its intent to prescribe waste discharge requirements for this discharge.
8. The Board at a public meeting, heard and considered all comments pertaining to this discharge.
9. The project is exempt from the provisions of the California Environmental Quality Act under Section 15304, Title 14 of the California Administrative Code.

IT IS HEREBY ORDERED, that the discharger, in order to meet the provisions contained in Division 7 of the California Water Code and regulations adopted thereunder, shall comply with the following:

A. Prohibitions

1. The disposal or discharge of wastes in a manner which will degrade water quality and adversely affect the beneficial uses of the groundwaters of the State is prohibited.
2. The disposal or discharge of wastes through surface runoff or through subsurface transport which will degrade the water quality and adversely affect the beneficial uses of the surface waters of the State is prohibited.

B. Specifications

1. The location of all potential sources of hazardous material discharge on the discharger's facility shall be identified and whether any discharge to the soil and groundwater has occurred shall be determined.
2. The lateral and vertical extent of all soil and groundwater pollution shall be defined.

3. The local and regional hydrogeologic conditions shall be defined in the areas of and contiguous to any identified pollution.

C. PROVISIONS


1. The storage, handling, treatment or disposal of polluted soil or groundwater shall not create a nuisance as defined in Section 13050(m) of the California Water Code.
2. In order to comply with Specifications B.1 and B.2 the discharger, shall meet the following compliance time schedule:

<u>Tasks</u>	<u>Completion Date</u>
a. Submit a workplan and time schedule to determine the following:	October 18, 1985
1) The presence of soil and groundwater pollution at the former location of the Navy's public works yard and at its supply department's paint and drum storage area.	
2) The integrity of all underground tanks containing hazardous materials shall be tested using methods consistent with State Law.	
b. Submit a technical report transmitting the results of the investigation described in Provision 2.a.	February 14, 1986
c. Fully determine the distribution of pollution in the soil and groundwater on the discharger's property. This should include the lateral and vertical extent of dissolved material. If the polluted groundwater extends off-site submit a proposal to fully define its extent.	February 14, 1986

3. In order to comply with specification B.3, the discharger, shall:
 - a. Determine the aquifer characteristics of all water-bearing zones found to have contamination by using appropriate hydrologic tests and methods.
 - b. Determine the relative migration of groundwater from any contaminated zone to neighboring zones.
 - c. Determine the recharge and discharge areas of the contaminated area and how these factors affect contaminant migration on a short-term and long-term basis.
 - d. Determine the groundwater gradients in each of the water-bearing zones where concentrations are found.
 - e. Assess the influence, if any, that pumping from private or public wells may have on the groundwater flow and contaminant migration.
4. Documentation of compliance with the Specifications B.2, B.3. and Provisions 3 in this order shall include groundwater gradient contour maps, cross-sectional geologic maps, geophysical logs and laboratory analyses. The spacing of monitoring wells and/or borings shall be sufficiently close to reduce errors in interpretation between data points. This documentation shall be updated and submitted with each technical report required under this Order, as appropriate.
5. The discharger shall submit detailed quarterly summaries on its progress toward compliance with the Provisions specified in this Order, including specific actions taken and actions proposed prior to the next report. The quarterly summary should be received in written form by the Regional Board staff by the end of the second week following each quarter.
6. All samples shall be analyzed by a State certified laboratory using approved EPA methods for the type of analysis to be performed. All laboratories shall maintain quality assurance/quality control records for Board review.

7. The discharger shall permit the Board or its authorized representative, in accordance with Section 13267(c) of the California Water Code:
 - a. Entry upon premises in which any pollution sources exist, or may potentially exist, or in which any required records are kept.
 - b. Access to copy any records required to be kept under terms and conditions of this Order.
 - c. Inspection of any monitoring equipment or method's required by this Order.
 - d. Sampling of any groundwater or soil which is accessible, or may become accessible as part of any investigation or remedial action program, to the discharger.
8. The discharger shall maintain in good working order and operate, and efficiently as possible, any facility or control system installed to achieve compliance with the requirements of this Order.
9. The Board will review this Order periodically and may revise the requirements when necessary. Interim and final cleanup limits shall be established by Board action once compliance with Specifications is achieved.

I, Roger B. James, Executive Officer, do hereby certify the foregoing is a full, true and correct copy of an Order adopted by the California Regional Water Quality Control Board, San Francisco Bay Region, on September 18, 1985.


ROGER B. JAMES
Executive Officer

Attachment:

1. Site map
2. 1950 Navy site map

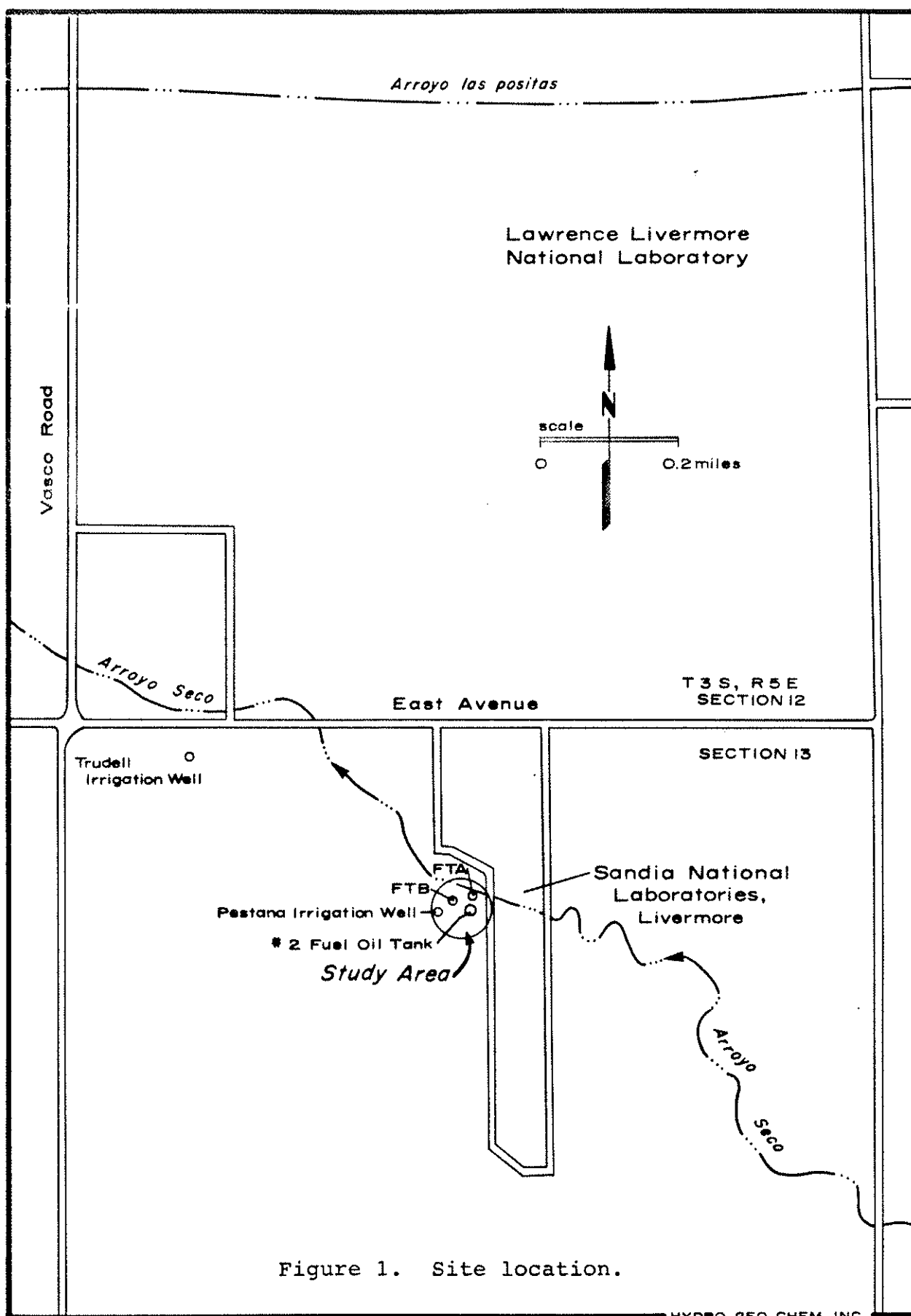
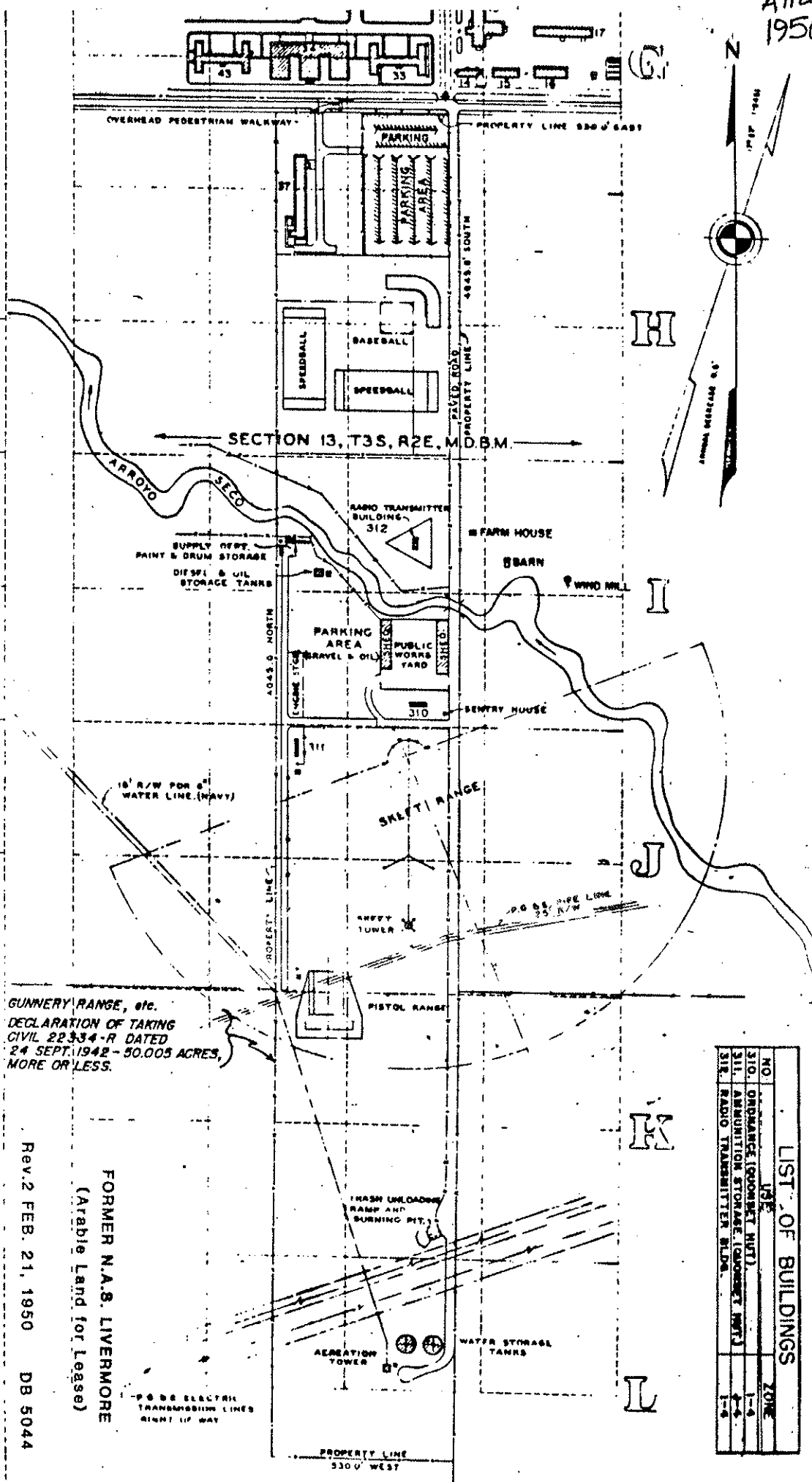


Figure 1. Site location.

HYDRO GEO CHEM, INC.



GUNNERY RANGE, etc.
DECLARATION OF TAKING
CIVIL 22334-R DATED
24 SEPT. 1942 - 50.005 ACRES,
MORE OR LESS.

FORMER N.A.S. LIVERMORE
(Arable Land for Lease)

Rev. 2 FEB. 21, 1950 DB 5044

LIST OF BUILDINGS

NO.	USE	ZONE
310.	ORDNANCE (GROUNSET HUT)	1-4
311.	AMMUNITION STORAGE (GROUNSET HUT)	1-4
312.	RADIO TRANSMITTER BLDG.	1-4

FIGURE A-2